

### **REMARKS**

This amendment is responsive to the Office Action of April 1, 2008. Claims 1-8, 11, 13, and 14 have been amended herein. New claims 16-20 have been added herein. Reconsideration and allowance of all claims are requested.

### **The Office Action**

Claims 6, 8, 13, and 14 are objected to for various informalities. These claims have been amended herein in accordance with the Examiner's suggestions.

Claims 1, 2, 4, 7, 11, and 13-15 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Thompson (U.S. Patent No. 4,291,228).

Claim 3 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent No. 4,291,228) in view of Pandelisev (US Patent No. 5,753,918).

Claim 9 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent No. 4,291,228) in view of Levin (US Patent No. 7,049,600).

Claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent No. 5,723,076).

Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent No. 4,291,228) in view of Moyers (US Pub. No. 2004/0217292).

Claims 5, 6, and 8 are not rejected on art and are understood to contain allowable subject matter.

### **The Claims Distinguish Patentably Over the References of Record**

Independent claim 1 has been amended to set forth that the individual scintillation elements have curved inner surfaces. Support for this amendment can be found in the specification at, for example, page 5, lines 6-9; Figure 2. The curved surfaces of the scintillation elements contribute to a continuous interior curvature of the scintillation layer. Thompson fails to disclose this aspect of independent claim 1. Rather, Thompson has a flat inner surface (note Figs. 2a and 2b).

Independent claim 5 has been amended to set forth a plurality of scintillation elements having curved inner surfaces. Support for this amendment can be found in the specification at, for example, page 5, lines 6-9; Figure 2.

Independent claim 7 has been amended to set forth a plurality of scintillation elements having curved inner surfaces so that a resulting scintillation layer is curved and the scintillation elements are oriented toward a center of curvature of the scintillation layer. Support for this amendment can be found in the specification at, for example, page 5, lines 6-9; Figure 2. Thompson fails to disclose this aspect of independent claim 7.

Independent claim 11 has been amended to set forth a plurality of cuboid-shaped scintillation elements that are joined together to form a scintillation layer with a substantially continuous detection surface, and a plurality of wedge-shaped scintillation elements positioned in tapered gaps between neighboring pairs of the cuboid-shaped scintillation elements. Support for this amendment can be found in the specification at, for example, page 5, lines 12-20; Figure 3. Thompson fails to disclose this aspect of independent claim 11.

Regarding the various other references cited in the rejections of several of the dependent claims, it is noted that none of the cited references discloses scintillation elements with curved interior surfaces, as set forth in independent claims 1, 5, and 7. Accordingly, independent claims 1, 5, and 7 and dependent claims 2-4, 6, 8-10, and 16-19 are not rendered obvious by the combination of Thompson with any of the other cited references. Moreover, none of the cited references discloses a plurality of wedge-shaped scintillation elements that fill in tapered gaps between cuboid-shaped scintillation elements that form a continuous detection surface, as set forth in independent claim 11. Accordingly, independent claim 11 and dependent claims 12-15 and 20 are not anticipated by and distinguish patentably over Thompson and the other references of record.

New claims 16-18 and 20 have been added to set forth that the curvature of the inner surface of the scintillation elements is concave relative to a center of curvature of the scintillation layer. Support for these claims can be found in the specification at, for example, Figure 2.

New claim 19 has been added to set forth the aspect of press-forming the scintillation elements with curved interior surfaces from a ceramic scintillation material comprising lutetium aluminum garnet (LuAG). Support for this claim can be found in the specification at, for instance, page 5, lines 9-11.

In view of at least the foregoing, it is respectfully submitted that Thompson does not anticipate independent claims 1, 5, 7, and 11, and does not anticipate or render obvious claims 2-4, 6, 8-10, and 12-20 dependent therefrom. Withdrawal of this rejection is respectfully submitted.

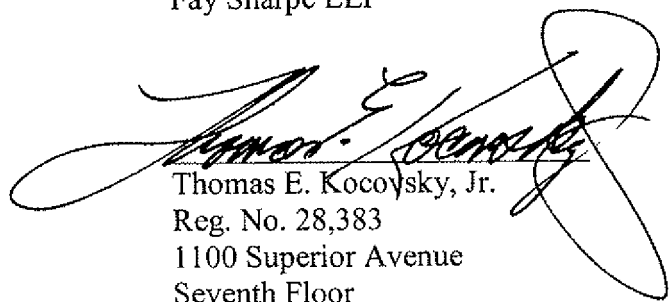
### CONCLUSION

For the reasons set forth above, it is submitted that claims 1-20 (all claims) distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is requested to telephone Thomas E. Kocovsky at (216) 861-5582.

Respectfully submitted,

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